

WHAT IS CLAIMED IS:

- 1 1. A sensor for measuring the concentration or presence/absence
2 of carbon dioxide in respiratory gas from a living body, comprising:
3 a support member for supporting a light-emitting element and
4 a light-receiving element which are disposed on a single optical
5 axis so as to oppose each other; and
6 a respiratory flow path formed in the support member in such
7 a manner that the respiratory gas can flow so as to cross over the
8 optical axis when the support member is attached to an area located
9 below the nostrils of the living body.
- 1 2. The sensor as claimed in claim 1, further comprising:
2 retaining means for attaching and securing the support member
3 to a position below the nostrils.
- 1 3. The sensor as claimed in claim 2, wherein retaining means
2 corresponds to ear straps which are hooked around the ears of the
3 living body for holding.
- 1 4. The sensor as claimed in claim 3, wherein the ear straps includes
2 at least one of a first lead wire for supplying power to the
3 light-emitting element and a second lead wire for outputting a signal
4 detected by the light-receiving element to the outside such that
5 at least one of first and second lead wire is laid in the ear straps.

1 5. The sensor as claimed in claim 2, wherein the retaining means
2 corresponds to an engagement member provided on the support member
3 and engaged with a tubular member for supplying oxygen to the
4 nostrils.

1 6. The sensor as claimed in claim 2, wherein the retaining means
2 is an oxygen mask which covers the face of the living body and supplies
3 oxygen.

1 7. The sensor as claimed in claim 1, wherein the support member
2 is provided with a respiratory guide section for guiding the
3 respiratory gas from the nostrils to the respiratory flow path.

1 8. The sensor as claimed in claim 1, wherein the support member
2 is provided with an adapter having nasal prongs to be inserted into
3 the nostrils for introducing the respiratory gas from the nostrils
4 to the respiratory flow path.

1 9. The sensor as claimed in claim 1, wherein the support member
2 is provided with a respiratory guide section for introducing the
3 respiratory gas from the mouth to the respiratory flow path.

1 10. A sensor for measuring the concentration or presence/absence
2 of carbon dioxide in respiratory gas from a living body, comprising:
3 a support member for supporting a light-emitting element and

4 a light-receiving element which are disposed on a single optical
5 axis so as to oppose each other;

6 a respiratory flow path formed in the support member in such
7 a manner that the respiratory gas can flow so as to cross over the
8 optical axis; and

9 an oxygen mask covering the face of the living body and supplying
10 oxygen,

11 wherein the support member is provided on an exterior surface
12 of the oxygen mask to bring the inside of the oxygen mask in
13 communication with the respiratory flow path.

11. The sensor as claimed in claim 1, wherein the light-emitting
12 element is a miniature infrared radiation lamp having a power
13 consumption of 0.3W or less.

12. The sensor as claimed in claim 10, wherein the light-emitting
1 element is a miniature infrared radiation lamp having a power
3 consumption of 0.3W or less.

13. A sensor for measuring the concentration or presence/absence
2 of carbon dioxide in respiratory gas from a living body, comprising:
3 an airway case opened on both ends thereof and having at least
4 a circumferential wall having a hole formed therein for passing
5 through the respiratory gas; and
6 a pair of holding members for hermetically holding

7 transparent thin films between respective end faces of the airway
8 case;

9 a pair of supporting members respectively fitted into the
10 outer end faces of the pair of holding members for supporting a
11 light-emitting element and a light-receiving element which are
12 disposed on a single optical axis so as to oppose each other,

13 wherein the airway case is attached to a position below the
14 nostrils of the living body, the respiratory gas can cross over
15 the optical axis.

14. The sensor as claimed in claim 13, wherein the thin films
15 are anti-fogging films for preventing condensation of moisture in
16 the respiratory gas on the surfaces of the films.

15. The sensor as claimed in claim 13, wherein a pair of supporting
16 members are removably engaged with a pair of holding members through
17 engagement members.

16. The sensor as claimed in claim 13, wherein the airway case
17 is provided with an adapter having nasal prongs to be inserted into
18 the nostrils for introducing respiratory gas from the nostrils into
19 the airway case.

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17. The sensor as claimed in claim 13, wherein the airway case
18 has a respiratory guide section for introducing respiratory gas

3 from the mouth into the airway case.